

Title (en)

HOLLOW FIBER MEMBRANE SAMPLE PREPARATION DEVICES

Title (de)

HOHLFASERMEMBRAN PROBENPRÄPARATIONSANORDNUNGEN

Title (fr)

DISPOSITIFS DE PREPARATION D'ECHANTILLONS CONSTITUES DE MEMBRANES A FIBRES CREUSES

Publication

**EP 1388005 A1 20040211 (EN)**

Application

**EP 02766799 A 20020425**

Priority

- US 0212952 W 20020425
- US 28715801 P 20010426

Abstract (en)

[origin: WO02088672A1] Simultaneous sample purification, enrichment and analysis of pharmaceuticals, illicit drugs, pollutants, biotechnological products, synthetic organic reaction products and food/flavor ingredients from complex matrices can be performed using porous hollow fiber or porous-disk liquid-membrane devices. The devices are part of a multi-well (e.g. 96-well) plate. The devices can be used for selective separation and enrichment of complex mixtures containing trace levels of analytes, and can be used in tandem with analytical instruments which routinely handle multiple samples under high throughput screening conditions. A multi-well/multi-vial plate can into state-of-the-art HPLC or GC sampling systems or LC/MS or GC/MS instruments. Samples can be enriched several orders of magnitude and can directly be withdrawn from the fiber and injected into the chromatographic instruments. Alternatively, these enriched samples can be introduced directly into MS, CE or other detection devices. Selective extraction of complex mixtures of analytes can be achieved through variation of acceptor phase chemistry, liquid membrane coating, pore size control of the hollow fibers, nature of the polymer from which the hollow fibers are made or pH of the acceptor phase.

IPC 1-7

**G01N 1/40**

IPC 8 full level

**G01N 1/10** (2006.01); **B01D 61/18** (2006.01); **B01D 61/24** (2006.01); **B01D 61/28** (2006.01); **B01D 63/02** (2006.01); **B01L 3/00** (2006.01); **B01L 99/00** (2010.01); **G01N 1/34** (2006.01); **G01N 1/36** (2006.01); **G01N 1/40** (2006.01); **G01N 30/06** (2006.01); **G01N 30/88** (2006.01)

CPC (source: EP US)

**B01D 61/18** (2013.01 - EP US); **B01D 61/246** (2013.01 - EP US); **B01D 61/28** (2013.01 - EP US); **B01D 63/0241** (2022.08 - EP US); **B01D 63/043** (2013.01 - EP US); **B01L 3/50255** (2013.01 - EP US); **B01L 3/50853** (2013.01 - EP US); **G01N 1/34** (2013.01 - EP US); **G01N 1/4005** (2013.01 - EP US); **B01D 2313/025** (2013.01 - EP US); **B01D 2313/23** (2013.01 - EP US); **B01L 2200/025** (2013.01 - EP US); **B01L 2200/0631** (2013.01 - EP US); **B01L 2300/046** (2013.01 - EP US); **B01L 2300/0829** (2013.01 - EP US); **G01N 2001/4016** (2013.01 - EP US); **G01N 2001/4061** (2013.01 - EP US); **Y10T 436/25375** (2015.01 - EP US); **Y10T 436/255** (2015.01 - EP US)

Citation (search report)

See references of WO 02088672A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

**WO 02088672 A1 20021107**; AU 2002307529 B2 20070201; CA 2445316 A1 20021107; DE 60216076 D1 20061228; DE 60216076 T2 20070621; EP 1388005 A1 20040211; EP 1388005 B1 20061115; JP 2004535563 A 20041125; US 2004171169 A1 20040902; US 7468281 B2 20081223

DOCDB simple family (application)

**US 0212952 W 20020425**; AU 2002307529 A 20020425; CA 2445316 A 20020425; DE 60216076 T 20020425; EP 02766799 A 20020425; JP 2002585927 A 20020425; US 47589604 A 20040406